

United States Patent [19]

Chung et al.

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[54] **HEAT-CURABLE SILICONE
COMPOSITIONS HAVING IMPROVED
BATH LIFE**

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528/15; 528/31; 528/32; 264/331.11**

[58] Field of Search **528/15, 31, 32;
264/331.11; 525/478; 322/172**

[56] **References Cited**

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[57] **ABSTRACT**

A curable organosilicon composition comprises a component having silicon-bonded hydrogen atoms, a component having silicon-bonded radicals reactive therewith, a curing catalyst, a catalyst-inhibitor and a bath life extender. The use of certain compounds, which are ineffective as a bath life extender in the absence of a catalyst inhibitor, effectively extend the room temperature bath life of a silicone coating composition containing a catalyst inhibitor. Being a substantial non-inhibitor for the catalyst the bath life extender component does not effect the cure time and/or cure temperature of the composition.

This discovery has permitted the preparation of curable coating compositions which have a long bath life at room temperature and a rapid cure time at elevated temperatures which does not drift to longer intervals as the coating compositions ages over a typical production run.

The room temperature cure times of the organopolysiloxane coating compositions of this invention are adequately long, and their cure times at elevated temperature are advantageously brief, that they are useful in fast-paced coating operations, such as adhesive release coating operations wherein the cured coating is further coated with an adhesive in-line, i.e., immediately after being cured.

15 Claims, No Drawings